

IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application. An identifier indicating the status of each claim is provided.

Listing of Claims

1. (Currently Amended) A recording apparatus, comprising:

file production means for producing a file having a hierarchical structure,

wherein the file comprises actual data and reference data,

wherein the actual data comprises video data and audio data, both in the form of compressed data,

wherein the reference data is used for a reproduction operation of the actual data,

wherein the reference data has a hierarchical structure and has data used for a calculation in a reproduction operation in a predetermined layer in said hierarchical structure of said reference data corresponding to said compressed video data and said compressed audio data, respectively;

data reproduction means for producing reproduction condition data in a predetermined structure which includes a condition for the reproduction operation based on said data used for a calculation of a condition of being demanded for reproduction operation in said reference data,

wherein the reproduction condition data is disposed in a top layer of said hierarchical structure of said file; and

~~-formed from video data and audio data both in the form of compressed data together with information necessary for processing of the video data and audio data; and recording means for recording the file produced by said file production means on a predetermined recording medium,~~

~~said file production means disposing information regarding decoding of the video data and audio data collectively on the top side of the file upon production of the file.~~

2. (Original) The recording apparatus according to claim 1,
wherein information of a file structure of the file is disposed collectively on the top side of the file upon production of the file.

3. (Original) The recording apparatus according to claim 1,
wherein the information regarding decoding of the video and audio data is encoded information.

4. (Original) The recording apparatus according to claim 1,
wherein said file production means produces an index file of files recorded on the recording medium in the form of a series of entries in the form of blocks of extract information extracted from and coordinated with the files recorded on the recording medium, and the information regarding decoding of the video and audio data is allocated to the index file.

5. (Currently Amended) A reproduction apparatus, comprising:
reproduction means for reproducing a file recorded on a predetermined recording medium,

wherein the file comprises actual data and reference data,

wherein the actual data comprises of video data and audio data, both in the form of compressed data,

wherein the reference data is used for a reproduction operation of the actual data,

wherein the reference data has a hierarchical structure and has data used for a calculation in a reproduction operation in a predetermined layer in said hierarchical structure of said reference data corresponding to said compressed video data and said compressed audio data, respectively,

wherein the reproduction means reproduces reproduction condition data in a predetermined structure which includes a condition for the reproduction operation based on said data used for a calculation of a condition of being demanded for reproduction operation in said reference data,

wherein the reproduction condition data is disposed in a top layer of said hierarchical structure of said file;

file processing means for separating video data and audio data from the file reproduced by said reproduction means; and

decoding means for decoding the video data and audio data;

said reproduction means partially reproducing files recorded on the recording medium to acquire information regarding decoding means set in the files;

 said file processing means discriminating whether ~~or not~~ each of the files can be decoded normally based on the information regarding the decoding means;

 said file production means displaying the files recorded on the recording medium in a table such that only those files which can be decoded normally can be selected.

6. (Original) The reproduction apparatus according to claim 5,

 wherein each of the files has a hierarchical structure formed from video data and audio data both in the form of compressed data together with information necessary for processing of the video data and audio data, and information regarding decoding of the video and audio data is disposed collectively on the top side of the file, said reproduction means acquiring information regarding decoding of the video and audio data from the information regarding decoding collected on the top side of the file.

7. (Currently Amended) The reproduction apparatus according to claim 5,

 wherein, when said reproduction means acquires the information regarding said decoding means, said reproduction means acquires information regarding said file processing means ~~together~~ with the information regarding decoding, and said file processing means discriminates whether ~~or not~~ the decoding can be performed normally based ~~not only~~ on the information regarding said decoding means ~~but also on~~ and the information regarding said file processing means.

8. (Original) The reproduction apparatus according to claim 7,
wherein information of file structures of each of the files is disposed collectively
on the top side of the file, and said reproduction means acquires information regarding said file
processing means from the information of the file structure of the file collected on the top side of
the file.

9. (Original) The reproduction apparatus according to claim 5,
wherein only those of the files recorded on the recording medium which can be
decoded normally are displayed in a table so that only the files which can be decoded normally
can be selected.

10. (Original) The reproduction apparatus according to claim 5,
wherein those of the files recorded on the recording medium which can be
decoded normally and those of the files recorded on the recording medium which cannot be
decoded normally are displayed separately from each other in a table such that only the files
which can be decoded normally can be selected.

11. (Currently Amended) A file managing method for managing files recorded on
a recording medium, comprising the steps of:

partially reproducing the files recorded on the recording medium to acquire
information regarding decoding of the files set in the files,

wherein the files comprise actual data and reference data,

wherein the actual data comprises video data and audio data, both in the form of compressed data,

using the reference data for a reproduction operation of the actual data,

wherein the reference data has a hierarchical structure and has data used for a calculation in a reproduction operation in a predetermined layer in said hierarchical structure of said reference data corresponding to said compressed video data and said compressed audio data, respectively;

producing reproduction condition data in a predetermined structure which includes a condition for the reproduction operation based on said data used for a calculation of a condition of being demanded for reproduction operation in said reference data,

wherein the reproduction condition data is disposed in a top layer of said hierarchical structure of said file;

discriminating whether or not each of the files can be decoded normally based on the information regarding the decoding; and

displaying the files recorded on the recording medium in a table such that only those of the files which can be decoded normally can be selected.

12. (Original) The file managing method according to claim 11,
wherein the information regarding decoding is positioned collectively on the top side of each of the files to form the file.

13. (Original) The file managing method according to claim 11,
wherein each of the files has a hierarchical structure formed from video data and
audio data both in the form of compressed data together with information necessary for
processing of the video data and the audio data, and at the discriminating step, it is discriminated
whether or not decoding can be performed normally based not only on the information regarding
decoding but also on the information of the file structure of the file.

14. (Original) The file managing method according to claim 13,
wherein the information of the file structures of the file is positioned collectively
on the top side of the file to form the file.